U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SERIAL NO. SUBSTITUTE FORM PTO-1449 PATENT AND TRADEMARK OFFICE IBM/04B (RO996-052L) 09/100,595 (MODIFIED) **INFORMATION DISCLOSURE** APPLICANT STATEMENT BY APPLICANT Joseph Phillip Bigus et al. **GROUP FILING DATE** (Use several sheets if necessary) (37 CFR 1.98(b)) June 19, 1998 2762 **U.S. PATENT DOCUMENTS ISSUE EXAMINER FILING DATE** INITIAL PATENT NUMBER DATE **PATENTEE CLASS SUBCLASS** IF APPROPRIATE 1 4 5 8 5 04/03/90 Packard et al. 364 200 A.A 05/23/88 5 0 7 3 8 9 0 12/17/91 370 12/30/88 A.B Peter J. Danielsen 58.2 5 9 A.C 6 05/26/92 Stearns et al. 395 700 05/23/88 5 5 6 3 10/13/92 Bigus et al. 379 113 12/11/90 A.D 5 2 2 6 7 6 07/06/93 A.E Westaway et al. 395 800 08/20/90 2 3 4 2 6 08/10/93 A.F Wobber et al. 380 25 07/21/92 2 1 6 2 1 08/31/93 51 Ronald G. Smart 395 A.G 06/26/91 5 2 7 6 7 6 8 01/04/94 James L. Bander 395 10 03/20/91 A.H 5 3 0 3 2 1 n 04/05/94 395 650 A.I McAtee et al. 06/28/91 7 8 5 3 1 6 8 05/31/94 Ralph T. Watson et al. 395 161 02/26/93 A.J 5 3 2 2 8 06/28/94 650 04/22/93 A.K Johannes Klein 395 FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS **DOCUMENT PUBLICATION** COUNTRY OR **TRANSLATION** NUMBER DATE PATENT OFFICE **CLASS SUBCLASS** (YES/NO) WO9321586 10/28/93 A.L A.M WO9500907 01/05/95 W09502217 01/19/95 A.N A.O WO9511560 04/27/95 06/08/95 A.P WO9515635 A.Q 2061117 02/12/92 Application for Canadian Patent OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication) A.R Gilbert et al., "IBM Intelligent Agents", http://www.networking.ibm.com/iag/iagwp1.htm1, (1996). A.S "Commercial Expert System Shells", http://www.ioe.ac.uk/hgm/expert3.html, (1997). A.T "Commercial Software Packages for Neural Network Simulation", ftp://ftp.sas.com/pub/neural/FAQ6.html, (1997). **EXAMINER DATE CONSIDERED** EXAMINER: Initial if citation considered, whether or not in conformance. Draw line through citation only if not in conformance and not

considered. Include a copy of this form with next communication to applicant.

March 1995, Volume 42, No. 3, pp. 265-288.

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EXAMINER: Initial if citation considered, whether or not in conformance. Draw line through citation only if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Siegfried R. Bocionek, "Agent systems that negotiate and learn", International Journal of Human-Computer Studies,

Sheet 3 (C) of 11 SUBSTITUTE FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SERIAL NO. PATENT AND TRADEMARK OFFICE 09/100,595 (MODIFIED) IBM/04B (R0996-052L) INFORMATION DISCLOSURE **APPLICANT** STATEMENT BY APPLICANT Joseph Phillip Bigus et al. (Use several sheets if necessary) **FILING DATE GROUP** (37 CFR 1.98(b)) June 19, 1998 2762 **U.S. PATENT DOCUMENTS EXAMINER** ISSUE **FILING DATE** INITIAL PATENT NUMBER DATE **PATENTEE CLASS SUBCLASS** IF APPROPRIATE 8 01/02/96 C.A Hamilton et al. 395 700 12/15/93 8 9 C.B 6 9 01/02/96 Christian D. Saether 395 182.13 03/23/95 C.C 6 0 3 0 3 1 02/11/97 White et al. 395 683 07/08/93 C.D C.E C.F C.G C.H C.I C.J C.K FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS **DOCUMENT PUBLICATION COUNTRY OR TRANSLATION** DATE NUMBER PATENT OFFICE CLASS **SUBCLASS** (YES/NO) C.L JP4256101 1992 Japan No C.M JP5324009 1993 Japan No C.N JP6175944 1994 Japan Yes C.O C.P C.Q OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication) C.R Darrell Woelk et al., "Uncovering the next generation of active objects", OBJECT magazine, July/August 1995, pp. 32-40. C.S Jan Ozer, "Totally Streaming Multimedia", CD-ROM Professional, August 1996, Volume 9 No. 8, pp. 54-66. Barbara Hayes-Roth et al., "A Domain-Specific Software Architecture for Adaptive Intelligent Systems", IEEE C.T

EXAMINER: Initial if citation considered, whether or not in conformance. Draw line through citation only if not in conformance and not considered. Include a copy of this form with next communication to applicant.

DATE CONSIDERED

Transactions on Software Engineering, April 1995, Vol. 21, No. 4, pp. 288-301.

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·	E.S	Cristano Castelfranchi, "Guarantees for Autonomy in Cognitive Agent Architecture", <u>Proceedings of ECAL-94</u> <u>Workshop on Agent Theories</u> , <u>Architectures</u> , <u>and Languages</u> , <u>Amsterdam</u> , The Netherlands, August 8-9, 1994, pp. 56-70.													
	E.T	Devindra Weerasooriya et al., "Design of a Concurrent Agent-Oriented Language", Proceedings of ECAL-94 Workshop on Agent Theories, Architectures, and Languages, Amsterdam, The Netherlands, August 8-9, 1994, pp. 386-401.										CAI-94 Workshop , pp. 386-401.			
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SUBSTITUTE FORM PTO-1449 Sheat 9 U.S. DEPARTMENT OF COMMERCE (MODIFIED) ATTY. DOCKET NO. PATENT AND TRADEMARK OFFICE BERIAL NO IBM/04B (RO996-052L) AF 100,595 INFORMATION DISCLOSURE STATEMENT BY APPLICANT **APPLICANT** Joseph Phillip Bigus et al. (Use several sheets if necessary) (37 CFR 1.98(b)) FILING DATE GRC -June 19, 1998 2761 U.S. PATENT DOCUMENTS **EXAMINER** ISSUE INITIAL PATENT NUMBER DATE Filling DA **PATENTEE** CLASS SUBCLASS I.A IF APPROPRIA I.B I.C I.D 1.E 1.F 1.G 1.1 I.J I.K FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS DOCUMENT **PUBLICATION** COUNTRY OR NUMBER DATE **TRANSLATION** PATENT OFFICE CLASS SUBCLASS I.L (YES/NO) I.M I.N 1.0 I.P I.Q OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication) Paul Kearney et al., "Emergent Behaviour in a Multi-Agent Economic Situation", Proceedings of the 11th European I.R Conference on Artificial Intelligence, Amsterdam, The Netherlands, August 8-12, 1994, pp. 284-288. Wayne Wobcke, "Reasoning about Action from the Perspective of Situation Semantics, Proceedings of the 6th 1.5 Australian Joint Conference on Artificial Intelligence, Melbourne, Australia, November 16-19, 1993, pp. 71-76. Gunilla A. Sundstrom et al., "Cooperative Human-Computer Decision Making: An Experiment and Some Design I.T Implications", Proceedings of the Human Factors and Ergonomics Society 38th Annual Meeting, Nashville, Tennessee, **EXAMINER**

EXAMINER: Initial if citation considered, whether or not in conformance. Draw line through citation only if not in conformance and not considered. Include a copy of this form with next communication to applicant.

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Sheet __10 (J) __ of ___11 U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SERIAL NO. **SUBSTITUTE FORM PTO-1449** PATENT AND TRADEMARK OFFICE IBM/04B (RO996-052L) 09/100,595 (MODIFIED) APPLICANT INFORMATION DISCLOSURE STATEMENT BY APPLICANT Joseph Phillip Bigus et al. (Use several sheets if necessary) **FILING DATE GROUP** June 19, 1998 2762 (37 CFR 1.98(b)) **U.S. PATENT DOCUMENTS EXAMINER ISSUE FILING DATE** INITIAL **PATENT NUMBER** DATE **PATENTEE CLASS SUBCLASS** IF APPROPRIATE J.A J.B J.C J.D J.E J.F J.G J.H J.I J.J J.K FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS **DOCUMENT PUBLICATION COUNTRY OR TRANSLATION** PATENT OFFICE NUMBER **CLASS SUBCLASS** (YES/NO) DATE J.L J.M J.N J.O J.P J.Q OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication) J.R T. Moody, "AT&T Personalink (SM) - A Public Network for Smart Agent Pics", IEE Colloquium on Roaming with Data, London, UK, March 6, 1995, Digest No. 1995/046. J.S Lech Polkowski et al., "Introducing Rough Mereological Controllers: Rough Quality Control", Proceedings of RSSC '94 3rd Int'l. Workshop on Rough Sets and Soft Computing, San Jose, California, Nov. 10-12, 1994. J.T Terence J. Parr et al., "A Language for Creating and Manipulating VRML", Symposium on the VRML '95, San Jose, California, December 14-15, 1995, pp. 123-131.

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EXAMINER: Initial if citation considered, whether or not in conformance. Draw line through citation only if not in conformance and not

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Substitute Disclosure Form (PTO-1449)

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	K.S	David M. Chess, "Security Considerations in Agent-Based Systems", <u>For the 1st Annual Conference on Emerging</u> <u>Technologies and Applications in Communications</u> , Portland, Oregon, May 7-10, 1996.														
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